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10/525,340	09/07/2005	Hiroyuki Kojima	266229US6PCT	3706
22850	7590	03/19/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HSU, AMY R	
			ART UNIT	PAPER NUMBER
			2622	
			NOTIFICATION DATE	DELIVERY MODE
			03/19/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/525,340	<b>Applicant(s)</b> KOJIMA ET AL.	
	<b>Examiner</b> AMY HSU	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-17 is/are rejected.
- 7) ☒ Claim(s) 18 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 12/15/2008 regarding claims 1-17 have been fully considered but they are not persuasive. Claims 18-19 are objected to and contain allowable subject matter.
2. Applicants submit that the prior art fails to disclose that the aspect ratio conversion means is an operation mode in which the aspect ratio of the original video signal is changed automatically based on information about the original video signal, and an operation mode in which the aspect ratio of the original video signal is changed using a fixed factor determined without referring to the original video signal, as recited in claim 1.

Regarding the independent claims with newly amended limitations, examiner will elaborate explanation of teachings of Takagi in view of examiner's interpretation of the claims to further support and maintain the previous non-final rejection which relies on Takagi et al. (US 7209180), and mailed on 9/16/2008 (hereinafter "the previous rejection").

Takagi teaches two modes as claimed, the first mode is described starting from Col 5 Line 11 and the second mode is described starting from Col 6 line 42. The first mode of Takagi detects for input signal's aspect ratio 4:3 and if detected, follows a process to output a converted signal with 16:9 aspect ratio. The second mode of Takagi detects for input signal's aspect ratio 16:9 and if detected, follows a process to

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output a converted signal with 4:3 aspect ratio. Therefore the two modes differ by detecting an incoming 4:3 aspect ratio or 16:9.

Regarding the previous rejection of claim 3, the two modes are identified by referring to Fig. 2 S2 "yes", which represents an input signal with 4:3 aspect ratio which corresponds to the first mode stated in the paragraph above, and Fig. 2 S2 "no" represents an input signal with 16:9 aspect ratio which corresponds to the second mode described above where specifically a 16:9 aspect ratio input signal is to be detected for conversion. The certain aspect ratio of an input signal is referred to identify the two modes. The further steps of Fig. 2 continue with the first mode where a 4:3 aspect ratio input signal is being detected for the purpose of conversion to 16:9, and Fig. 7 continues with the second mode where a 16:9 aspect ratio input signal is being detected for the purpose of conversion to 4:3.

Therefore with reference to the claim language, Takagi's first mode teaches when a 4:3 aspect ratio input signal is detected, the mode "changes automatically based on information about the original video signal". The mode is changed "based on" the direction of the flow chart from S2 of Fig. 2, which is information about the original video signal. The second mode, which is based on a 16:9 aspect ratio and further detailed in Fig. 7, is a mode where the original video signal is "changed using a fixed scaling factor", which is changing from 16:9 to 4:3 as described in the second half of Column 6. The fixed scaling factor itself is "determined without referring to the original video signal" because the fixed scaling factor from 16:9 to 4:3 is set and will be converted accordingly from steps S13 to S19. In the second mode, said converting

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steps of S13 to S19 will always convert from 16:9 to 4:3 and no other scaling factor and therefore said step's scaling factor is not determined by the original video signal, rather whether the steps are performed are based on the direction of S12.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al. (US 7209180) in view of Kobayashi (US 4394690).

Regarding Claim 1, Takagi teaches an image processor for processing a video signal (*Col 2 Lines 22-25*), comprising:

aspect ratio information acquisition means for acquiring aspect ratio information about an original video signal (*Fig. 1 reference number 4, "aspect ratio detecting unit"*);

aspect ratio conversion means for carrying out a process of aspect ratio conversion on the original video signal (*Col 2 Lines 22-27 teach that the device outputs a signal with a changed aspect ratio, therefor the device converts the aspect ratio in order to change it, this can also be visualized from Fig. 8A-C*) based on the acquired aspect ratio information (*Fig. 7 S12 shows the changing process is performed based on the aspect ratio*) to generate a processed video signal representing an image of the original video signal having a roundness of 1 (*Col 1 Lines 41-45 teach the device is to*

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*prevent the video from being distorted by changing the aspect ratio. Note that the broad terms used in the claim, "roundness of 1" is interpreted to mean a ratio of 1, or undistorted, as it is not a term commonly known and used in the art); wherein the aspect ratio conversion means has an operation mode in which the aspect ratio of the original video signal is changed automatically based on information about the original video signal, and an operation mode in which the aspect ratio of the original video signal is changed using a fixed scaling factor determined without referring to the original video signal (the first mode is described starting from Col 5 Line 11 and the second mode is described starting from Col 6 line 42, Takagi's first mode teaches when a 4/3 aspect ratio input signal is detected, the mode "changes automatically based on information about the original video signal". The mode is changed "based on" the direction of the flow chart from S2 of Fig. 2, which is information about the original video signal. The second mode, which is based on a 16/9 aspect ratio and further detailed in Fig. 7, is a mode where the original video signal is "changed using a fixed scaling factor", which is changing from 16/9 to 4/3 as described in the second half of Column 6);*

background signal generation means for generating a background video signal serving as a background of the processed video signal; and video signal combination means for executing a process of combining the processed video signal and the background video signal, both having been subjected to aspect ratio conversion, to generate a synthesized video signal (*Fig. 7 S19 and Fig. 8B and 8C show the device creates a background signal and combines it with the changed aspect ratio image*).

Although it is well known, Takagi does not specifically disclose how the aspect ratio is detected, particularly by detecting a video identification signal that has been superimposed on the original video signal.

Kobayashi teaches the well known concept of a television signal which is a video signal, containing an ID signal which is distinct from the video signal because it can be separated from the television signal, and further teaches an ID signal detecting circuit where the corresponding aspect ratio of an image signal is obtained from the ID signal (*Col 1 Lines 20-23 and 54-65*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Takagi to realize the system of Takagi where the aspect ratio is detected by the specific method of obtaining it from an identification signal which is superimposed on the original video signal. This would have been obvious because it is well known in the art that there can be an identification signal superimposed on the original video signal containing the aspect ratio information which can be easily extracted by the receiving or processing connected apparatus and used for manipulating the aspect ratio.

Regarding Claim 4, Takagi teaches the image processor according to claim 1, wherein the aspect ratio conversion means changes the aspect ratio of the original video signal by pixel number conversion (*As seen from Fig. 8A to Fig. 8B the space where the image takes is different which means the number of pixels is converted*).

Regarding Claim 5, Takagi teaches the image processor according to claim 1, wherein the aspect ratio conversion means changes the aspect ratio of the original video signal in such a manner that the image has roundness of 1 (*as addressed with Claim 1*) and has the maximum size fitting in a selected screen (*as seen in Fig. 3B the blanks correspond to fitting the selected screen size and the image uses the rest of the space, which maximizes the rest of the space*).

Regarding Claim 6, one of ordinary skill in the art will realize that an output signal from a device is of one format; therefore the background signal combined with the image such as that seen in Fig. 3B is an output signal of a single format. Official notice is taken that bitmap format or JPEG format is very commonly used formats for video signals and is common that both signals would be of jpeg format. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a well known format and the compressed image in JPEG format would save storage space.

Regarding Claim 7, Takagi teaches the image processor according to claim 1, wherein the video signal combination means determines a size of the video signal. Fig. 3B shows the video signal that is a combination of the background signal and the changed image which is the output signal. The combination of the two determines the size of the video signal since the background and the image are necessary for the output signal.



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Regarding Claims 8 and 9, Takagi teaches the output or synthesized video signal is output by an output unit in Fig. 1, and official notice is taken that it is well known to record the output synthesized signal to a recording medium, the image having a roundness of 1 and maximum size as addressed above. It would have been obvious to one of ordinary skill in the art at the time of the invention to send the output signal to a recording means for the user to view the image at a later time.

Similarly, regarding Claim 10, by the same reasoning it would follow that the output video signal is recorded on a removable recording medium conforms to the aspect ratio selected. For example Fig. 2 is for a display having 4/3 aspect ratio and produces an output for a 4/3 aspect ratio device. One of ordinary skill in the art would realize to record the video signal on a medium that conforms to the associated display.

Regarding Claim 11, Takagi teaches the image processor according to claim 8, wherein when the image after conversion by the aspect ratio conversion means has an aspect ratio different from a preset aspect ratio at the time of recording, the video signal combination means adds the background video signal around the processed video signal to generate an image of any the preset aspect ratio. The aspect ratio is different as it is changed and added with a background video signal as visualized in Fig. 3A to Fig. 3B.

Claim 12 is a method claim with similar limitations as Claim 1 and is therefore rejected similarly. Claim 17 is also rejected for the same reasons as Claim 1.

Claims 13-16 are method claims with similar limitations as Claims 8-11 and are therefore rejected for the same reasons.

***Allowable Subject Matter***

4. Claims 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art teaches aspect ratio converting means where a two-bit code is used to indicate an original input signal's aspect ratio, however the prior art of record does not teach a two bit code indicating the process of aspect ratio conversion on an original video signal, further where the first bit of the two-bit code is used to indicate whether the original video signal represents a signal having a 16:9 aspect ratio embedded in a signal having an aspect ratio of 4:3.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMY HSU whose telephone number is (571)270-3012. The examiner can normally be reached on M-F 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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